

NON-PUBLIC?: N
ACCESSION #: 9209290320
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Sequoyah Nuclear Plant, Unit 2 PAGE: 1 OF 5

DOCKET NUMBER: 05000328

TITLE: Reactor Trip and Safety-Injection Actuation as a Result of an
Inadvertent Radio Transmission in the Incore Instrument Room
EVENT DATE: 08/21/92 LER #: 92-011-00 REPORT DATE: 09/21/92

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: 1 POWER LEVEL: 100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: C.D. McDuffy, Compliance Licensing TELEPHONE: (615) 843-7766

COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT:

At approximately 1322 Eastern daylight time, on August 21, 1992, with Unit 2 at 100 percent power, a reactor trip and a safety injection occurred from a low-pressurizer pressure signal. After plant conditions were stabilized, the safety injection was terminated, and the emergency core cooling-system pumps were returned to standby alignment. The apparent cause of the trip was determined to be from an inadvertent radio transmission in the incore instrument room seal table area near the pressurizer pressure transmitters. The procedure governing the use of radio equipment will be revised to better preclude radio transmissions inside containment during unit operation. In addition, alternate means of communications inside containment will be evaluated.

END OF ABSTRACT

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I. PLANT CONDITIONS

Unit 2 was operating at 100 percent power.

II. DESCRIPTION OF EVENT

A. Event

On August 21, 1992, at approximately 1322 Eastern daylight time (EDT), the unit experienced a reactor trip (EIS Code JC) and safety-injection actuation (EIS Code JE). The reactor trip and safety injection were initiated by a low-pressurizer pressure signal that resulted from an inadvertent radio transmission.

B. Inoperable Structures, Components, or Systems

None

C. Dates and Approximate Times of Major Occurrences

August 21, 1992 An Operations briefing was held in support at 1215 EDT of a planned valve-test activity. A radio was to be carried into the incore instrument room to receive communication only (not to transmit)

at approximately Personnel entered containment with a radio 1307-1322 EDT proceeded to the seal-table area. The specific valve to be tested was located, and preparations for testing were initiated.

at 1322-1333 EDT A reactor trip and safety injection occurred. Operations immediately entered Emergency Procedure E-O, "Reactor Trip or Safety Injection." All reactor coolant system (RCS) pressure indicators were indicating normal. Operations completed the immediate actions of the emergency procedure and transitioned to a safety-injection termination to recover from the safety-injection actuation.

at 1335-1351 EDT Operations declared a notification of

unusual event (NOUE). The emergency core cooling system pumps were returned to standby alignment with one centrifugal charging pump left in service.

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at 1411 EDT NRC was notified of the reactor trip, the safety-injection actuation, and the declaration of the NOUE.

at 1722 EDT Operations exited the safety-injection termination procedure and the NOUE.

D. Other Systems or Secondary Functions Affected

None.

E Method of Discovery

The radio transmission near the pressure transmitters caused the safety-injection actuation and the reactor trip, which caused an annunciation in the control room.

F. Operator Actions

As a result of the event, Operations performed Emergency Procedure E-O and verified that the critical safety systems and components were performing their intended functions. Operations declared an NOUE and stabilized the unit.

G. Safety System Responses

Safety systems performed their intended functions.

III. CAUSE OF EVENT

A. Immediate Cause

The safety injection and the reactor trip were generated from a low-pressurizer pressure signal. It has been concluded that the low-pressurizer pressure signal resulted from an inadvertent radio transmission in the incore instrument room near the pressurizer pressure transmitters.

B. Root Cause

The cause of this event is attributed to allowing a radio in containment on an operating unit, which was an assumed risk.

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IV ANALYSIS OF EVENT

Plant responses during and after the safety-injection actuation were consistent with the responses described in the Final Safety Analysis Report. As a result of the reactor trip and safety injection, the reactor coolant system (RCS) temperatures decreased below the shutdown margin analysis limit. However, borated water was added to the RCS in accordance with plant procedures. Hence, shutdown margin was maintained; the event was terminated and did not pose a nuclear safety threat to plant personnel or the public.

V. CORRECTIVE ACTIONS

Immediate Corrective Action

As an interim action, radios in containment are not allowed unless approved by the Duty Plant Manager or for a medical emergency.

Corrective Actions to Prevent Recurrence

1. Meetings were held with Operations personnel to discuss the importance of risk reduction.
2. The procedure governing the use of radio equipment will be revised to ensure that only radios that are not capable of transmitting will be allowed in containment in modes 1 through 4, except in the case of an emergency.
3. An evaluation will be conducted to determine alternate means of communications when inside containment.

VI. PREVIOUS SIMILAR EVENTS

A review of the LER database identified three LERs involving reactor trip signals induced by radio interference. Only one event, LER Special Report 81-04, involved a safety injection and reactor trip on low-pressurizer pressure signals. In this case, the actuation occurred when personnel used a radio near the pressurizer-pressure transmitters in the incore instrument room. The corrective action

involved the placement of signs in the incore instrument room warning against the use of two-way radios. In the current event, personnel were aware of the potential and did not intend to "use" the radio (transmit), i.e., receive only. This transmission was inadvertent.

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VII. COMMITMENTS

1. TVA will revise by November 22, 1992, the procedure governing the use of radio equipment to ensure that only radios that are not capable of transmitting will be allowed in containment in modes 1 through 4, except in the case of an emergency.
2. TVA will evaluate by October 2, 1992, alternate means of communications when inside containment

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TVA

Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37379

J. L. Wilson
Vice President, Sequoyah Nuclear Plant

September 21, 1992

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNIT 2 -
DOCKET NO.
50-328 - FACILITY OPERATING LICENSE DPR-79 - LICENSEE EVENT REPORT
(LER)
50-328/92011

The enclosed LER provides details concerning a reactor trip and a safety-injection actuation as a result of an inadvertent radio transmission in the incore instrument room. This event is being reported in accordance with 10 CFR 50.73(a)(2)(iv) as an automatic actuation of engineered safety features, including the reactor protection system.

Sincerely,

J. L. Wilson

Enclosure

cc: See page 2

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cc (Enclosure):

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